

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16. (canceled)

17. (currently amended) An *in vitro* method of directing a targeting vector to a specific pre-selected chromosomal location within a genome of a mouse embryonic stem (ES) cell, comprising introducing into the cell a targeting vector, wherein the targeting vector comprises a drug resistance gene under control of a ubiquitin promoter and homology arms directing the targeting vector to a specific chromosomal location.

18. (previously presented) The method of claim 17, wherein the ubiquitin promoter is the ubiquitin C promoter.

19. (previously presented) The method of claim 18, wherein the ubiquitin promoter is a human, mouse, rat, or bacterial ubiquitin promoter.

20. (previously presented) The method of claim 17, wherein the drug resistance gene encodes one of neomycin phosphotransferase, hygromycin phosphotransferase, or puromycin acetyl transferase.

21. (currently amended) A targeting vector comprising a drug resistance gene under control of a ubiquitin promoter and homology arms directing the targeting vector to a specific pre-selected chromosomal location.

22. (previously presented) The targeting vector of claim 21, wherein the ubiquitin promoter is the ubiquitin C promoter.

23. (previously presented) The targeting vector of claim 22, wherein the ubiquitin promoter is a human, mouse, rat, or bacterial ubiquitin promoter.

24. (previously presented) The targeting vector of claim 21, wherein the drug resistance gene

encodes one of neomycin phosphotransferase, hygromycin phosphotransferase, or puromycin acetyl transferase.

25. (currently amended) An *in vitro* method of increasing targeting frequency in mouse embryonic stem (ES) cells, comprising introducing into a mouse ES cell a targeting vector, wherein the targeting vector comprises a drug resistance gene under control of a ubiquitin promoter, and homology arms directing the targeting vector to a specific pre-selected chromosomal location.

26. (previously presented) The method of claim 25, wherein the ubiquitin promoter is the ubiquitin C promoter.

27. (previously presented) The method of claim 26, wherein the ubiquitin promoter is a human, mouse, rat, or bacterial ubiquitin promoter.

28. (previously presented) The method of claim 25, wherein the drug resistance gene encodes one of neomycin phosphotransferase, hygromycin phosphotransferase, or puromycin acetyl transferase.

29. (currently amended) An *in vitro* method of increasing the number of mouse embryonic stem (ES) cells correctly targeted with a targeting vector, comprising introducing into a mouse ES cell a targeting vector, wherein the targeting vector comprises a drug resistance gene under control of a ubiquitin promoter, and homology arms directing the targeting vector to a specific pre-selected chromosomal location.

30. (previously presented) The method of claim 29, wherein the ubiquitin promoter is the ubiquitin C promoter.

31. (previously presented) The method of claim 30, wherein the ubiquitin promoter is a human, mouse, rat, or bacterial ubiquitin promoter.

32. (previously presented) The method of claim 29, wherein the drug resistance gene encodes one of neomycin phosphotransferase, hygromycin phosphotransferase, or puromycin acetyl transferase.